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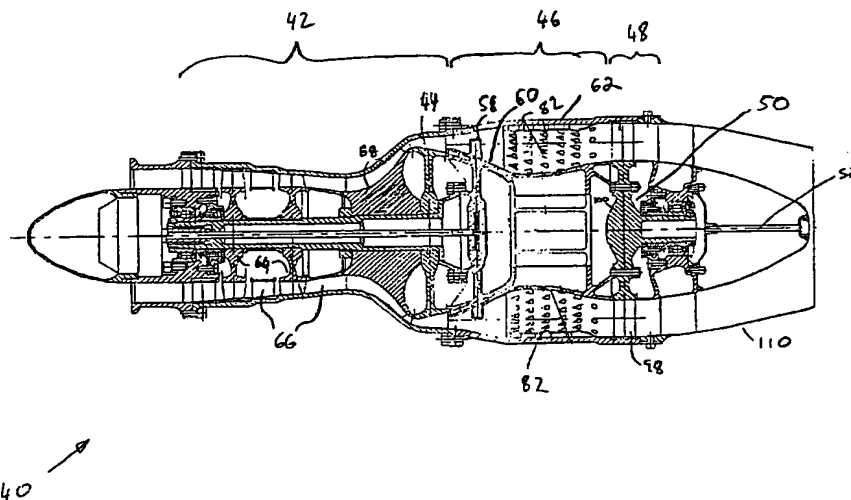
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(54) Title: ORBITTING COMBUSTION NOZZLE ENGINE



(57) **Abstract:** An orbiting combustor nozzle (OCN) engine, having a rotating assembly comprising a co-rotating compressor and nozzle wheel enclosed within a non-rotating outer casing, defining a rotating combustion chamber, is disclosed. Combustion occurs in the combustion chamber in a vortex of gas that rotates at the same angular velocity as the rotating assembly. Also disclosed, is a method of cooling a blade of a rotating wheel, such as a turbine wheel or nozzle wheel, by projecting cool air at the base of the vane from a nozzle corotating with the blade. Such cooling is easily implemented in an OCN engine with use of an innovative annular combustor. Also disclosed is a method of countering axial backflow by use of a combustion chamber compressor.

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